



**NEWSLETTER OF THE LONDON CHAPTER,  
ONTARIO ARCHAEOLOGICAL SOCIETY**

c/o London Museum of Archaeology  
1600 Attawandaron Road, London, ON N6G 3M6



March 2005

05-3

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The next meeting of the London Chapter will be held on Thursday, April, 14th, 2005. The speaker will be Dr. Peter Timmins of the UWO and Timmins-Martelle Heritage Consultants. Pete will speak on: *An Archaeological Survey on the French River.*

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The meeting will be held at 8 pm at the London Museum of Archaeology, 1600 Attawandaron Road, near the corner of Wonderland & Fanshawe Park Road, in the northwest part of the city.

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Student	\$15.00
Individual	\$18.00
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## PRELIMINARY INVESTIGATIONS AT RAT ISLAND (AHGX-7), COOTES PARADISE, HAMILTON, ONTARIO

Scott W. J. Martin

### INTRODUCTION

The earliest evidence in Ontario for the use of maize and presumably for the direct planting and harvesting of this tropical cultigen by local groups dates to about AD 500 at the Grand Banks site in the lower Grand River Valley (e.g. Crawford and Smith 2002; Crawford *et al.* 1997, 1998; Smith 1997a:57). While still apparently quite rare during the mid-first millennium AD, maize seems to have been associated with cord-wrapped stick decorated pottery (Smith 1997a; Stothers 1977; cf. Ferris 1999:23-28). Ceramics decorated variously with cord-wrapped stick motifs and often also with external punctates and internal bosses have been called Princess Point wares (Fox 1990:175; Smith and Crawford 1995; Stothers 1977). In south-central Ontario, these ceramics have been employed to delineate a (cultural) group or a set of groups known as the Princess Point Complex (e.g. Crawford and Smith 1996; Stothers 1977).

This paper is intended as a brief outline of my recent preliminary investigative research at the Rat Island site (AhGx-7) in Cootes Paradise, Hamilton, Ontario. These activities were conducted under Stage 3 research license 2001-129 and Stage 4 research license 2002-104. After a brief introduction to the development of the concept of the Princess Point Complex in order to situate my work within the impressive and detailed research in this vein over the past 15 years or so, I go on to summarize my preliminary work at Rat Island, which I hope will be the setting of a more extensive excavation campaign in the future.

### ARCHAEOLOGICAL BACKGROUND

The Princess Point Complex was first most clearly established and documented by David Stothers (e.g. 1969, 1977), was given a new lease on life in a synthesis by William Fox (e.g. 1990) and continues to be fine-tuned by a long-term regimen of excavation and laboratory analysis by David Smith, Gary Crawford and colleagues (e.g. Bursey 1995; Crawford and Smith 1996, 2002; Crawford *et al.* 1997, 1998; Smith 1997a, 1997b; Smith and Crawford 1995, 1997; Smith *et al.* 1997; cf. Ferris 1999). With some geographic truncation of Stothers' (1977) perceived original extent of the Princess Point Complex by Fox (e.g. 1990), the Grand River 'focus' (see Stothers 1977) has been maintained or retained as Princess Point Complex territory proper (see Smith and Crawford 1997:12-13). In essence, then, the area extending roughly from Long Point to the Niagara River and from the Cambridge area to the Credit River (Fox 1990:174; cf. Smith and Crawford 1995:63) has now become the Princess Point Complex 'culture area'. While the specifics need to be investigated further, similar ceramics in western New York and northwestern



Pennsylvania are also thought, by some, to pertain to the Princess Point Complex (e.g. James Morton and colleagues, pers. comm. 2002; Spaulding 1993, 1994).

Just as the geographic extent of the Princess Point Complex has been altered, so has its temporal range. Stothers (1977; see also Jackson 1983) suggested that both maize and cord-wrapped stick decoration were present at the Princess Point site by about AD 600/650 and allowed that the Princess Point Complex lasted until about AD 900. Fox (1990:182; see also Crawford and Smith 1996:783) shortened the temporal range to between AD 700/750 and 900. Current until a decade ago, Smith and Crawford (1995:63, 66) pointed out that the earliest radiocarbon dates from the Grand Banks site could only allow dates around AD 750 for the earliest maize and, presumably, for the inception of the Princess Point Complex. Recent radiocarbon calibrations and further excavations, however, have pushed back the accepted date of the entry or visible acceptance of maize and cord-wrapped stick pottery in south-central Ontario to about AD 500 and have extended the terminal date of the Princess Point Complex to about AD 1000/1050 or so with the attendant succession of the Early Ontario Iroquoian stage (see Crawford and Smith 1996; Crawford *et al.* 1997, 1998; Smith 1997a:48, 2001; Smith and Crawford 1997; cf. Ferris 1999; Williamson 1990).

Since the Princess Point Complex appears to exhibit spatial and material continuities to the partially-overlapping and succeeding Early Ontario Iroquoian stage (c. AD 900-1300) in south-central Ontario (see Smith 1997a:51, 54-55; cf. Ferris 1999; Williamson 1990) and because the Early Ontario Iroquoian manifestations seem to exhibit continuity down to the historic period (with application of the Direct Historical Approach), it may be argued that users of cord-wrapped stick motifs, at their first appearance in south-central Ontario at about AD 500, spoke Northern Iroquoian languages or dialects as well (e.g. Bursey 1995; Fiedel 1991, 1999; Snow 1995, 1996; Smith and Crawford 1995:68, 1997:24; cf. Hart and Brumbach 2003; Martin 2005b). As has been pointed out, however, both the consistency and the integrity of these variously-derived taxonomic appellative schemes begin to breakdown in attempts to shoebox the Princess Point Complex within the Ontario Iroquoian Tradition in something like a 'Formative Stage' (Smith and Crawford 1997:23). This is due both to our ignorance of the actual relationship(s) between the people involved (Smith and Crawford 1997:22-23) and, I think, also to the more fundamental flaws that lie in our reliance on a taxonomic scheme rooted in the normative culture concept and in a paradigm of sociopolitical evolution (cf. Hart and Brumbach 2003; Martin 2005b).

This apparent cohesion between the Princess Point Complex and groups of the Early Ontario Iroquoian stage has been cited by many researchers as support for the migration of Iroquoian speakers into Ontario by the middle of the first millennium AD (see Bursey 1995; Crawford and Smith 1996; Smith and Crawford 1995; Snow 1996; cf. Snow 1995; Stothers 1977; Starna and Funk 1994). According to this stance, then, both immigrant Iroquoian speakers, who were maize agriculturalists, and indigenous Algonkian speakers, who may not have experimented with maize, at least initially, were living quite close by one another for one to three centuries (e.g. Smith 1997a:63; Smith and Crawford 1997:23; Woodley 1996). In the face of this ethnolinguistic frontier, however, users of



dentate stamps and associated ceramic motifs are thought to have given way to those who employed cord-wrapped stick decorations (see Bursey 1995; Fiedel 1999, 2001:117-118; Snow 1996). The composition of local frontier and boundary conditions in such a situation is tantalising to consider and to attempt to document contextually (e.g. Gregg 1988; Zvelebil and Lillie 2000). Albeit describing a time a thousand years later, some Algonkian-speaking foragers, who experienced cold season food resource stress, overwintered with neighbouring Huron maize farmers (see O'Shea 1989:63-64). This probably involved reciprocations of various sorts including the likelihood of material diffusions, trait sharing, interlanguage competence, hybridisation and (inter)marriages.

As an alternative to the migration model, there are various nuanced versions of the *in situ* hypothesis for Iroquoians in Ontario. For example, it may have been that users of pseudo-scallop shell impression, linear incising and dentate-stamping motifs (i.e. 'Point Peninsula Complex' and/or 'Saugeen Complex') adopted cord-wrapped stick treatments by trait diffusion from elsewhere in the Lower Great Lakes region (Spence *et al.* 1990:143). Some of these groups or their ancestors were taking or had taken part in the broad exchange networks of the so-called Hopewell Interaction Sphere and its successor reticula (Fiedel 1999; Kenyon 1986; Martin 2005b; Mason 1981; Spence *et al.* 1979, 1990; Stothers 1977). If it can be surmised that these indigenous groups spoke Algonkian languages (Fiedel 1991, 1999, 2001:117-118) and if it is the case that maize and cord-wrapped stick motifs spread in through trait adoption from further south and/or west, then at least some members of these groups were already interacting with groups of different speech communities throughout the Lower Great Lakes region, the Midwest, the Allegheny and Appalachian uplands and, perhaps, the Susquehanna River drainage.

Three possible archaeological referents to mid-first millennium AD interaction between these supposedly distinct ethnolinguistic groups come in the forms of a) the conoidal shape of cord-wrapped stick vessels at the Peace Bridge site, which gives a sense of an 'older' vessel form with the 'new' decorative treatments (Ferris 1999:25; Robertson *et al.* 1997:501, 503), b) the presence of coil breaks on some cord-wrapped stick decorated vessels, which, apparently, should have been constructed by the 'new' paddle-and-anvil modelling technique (Bursey 1995:46; Fox 1990:172, 175) and c) albeit from southwestern Ontario, the vessels decorated both with dentate stamps and cord-wrapped stick designs from the Blue Water Bridge South site (O'Neal 2002: Tables 5.2-5.4; O'Neal and Mayer 1999:17). These findings of shared materials and shared techniques suggest that material boundaries did not or did not often exist between ethnolinguistic groups, during the mid- to late first millennium AD in southern Ontario. These pan-regional material similarities, among many others, call into question the reality and interpretive usefulness of our normative culture complexes that are, by name and definition, internally homogeneous and exclusive (see Hart and Brumbach 2003; Martin 2005b; cf. Ferris 1999:19; Smith 1997a:55; Williamson and Robertson 1994).

As a sort of middle-ground *in situ* stance, it could be that both Algonkian languages and Iroquoian languages were spoken in south-central Ontario before cord-wrapped stick pottery decoration and/or maize were taken up. Thus, members of both language families may have come to use cord-wrapped stick design elements and maize (see also Ferris



1999). At the same time, since maize has only been recovered from a limited number of sites in comparison to all those sites that have produced cord-wrapped stick pottery and notwithstanding recovery and preservation biases and differential site types or functions, the possibility must be considered that not all users of cord-wrapped stick motifs actually grew or imported maize. That is, not all 'Princess Point Complex' groups may have used maize. The notion of convergence (e.g. Renfrew 1999; cf. Ehret 1988; Hart and Brumbach 2003), then, should be further explored and, again, the concept of a bounded, uniform culture complex such as the Princess Point Complex must fall away. Future excavations may, then, recover maize on presumed 'non-agriculturalist' sites or on those sites that otherwise produce pseudo-scallop shell impressed, linear incised and dentate stamped ceramics as has been shown at some earlier and contemporary sites in southern Ohio and surrounding states. Such a finding should not come as a complete surprise in south-central Ontario due to the relative proximity and rough contemporaneity of the HH site, on the one hand, to the Princess Point and Grand Banks sites, on the other, to name a few (Ferris 1999; Smith 1997a:56, 63; Warrick 1990; Woodley 1996). Currently, however, very few sites evidence information to document the on-the-ground transition between the 'old' ceramics and the 'new' (Fox 1990:186; Stothers 1999:286).

## PRELIMINARY INVESTIGATIONS AT RAT ISLAND

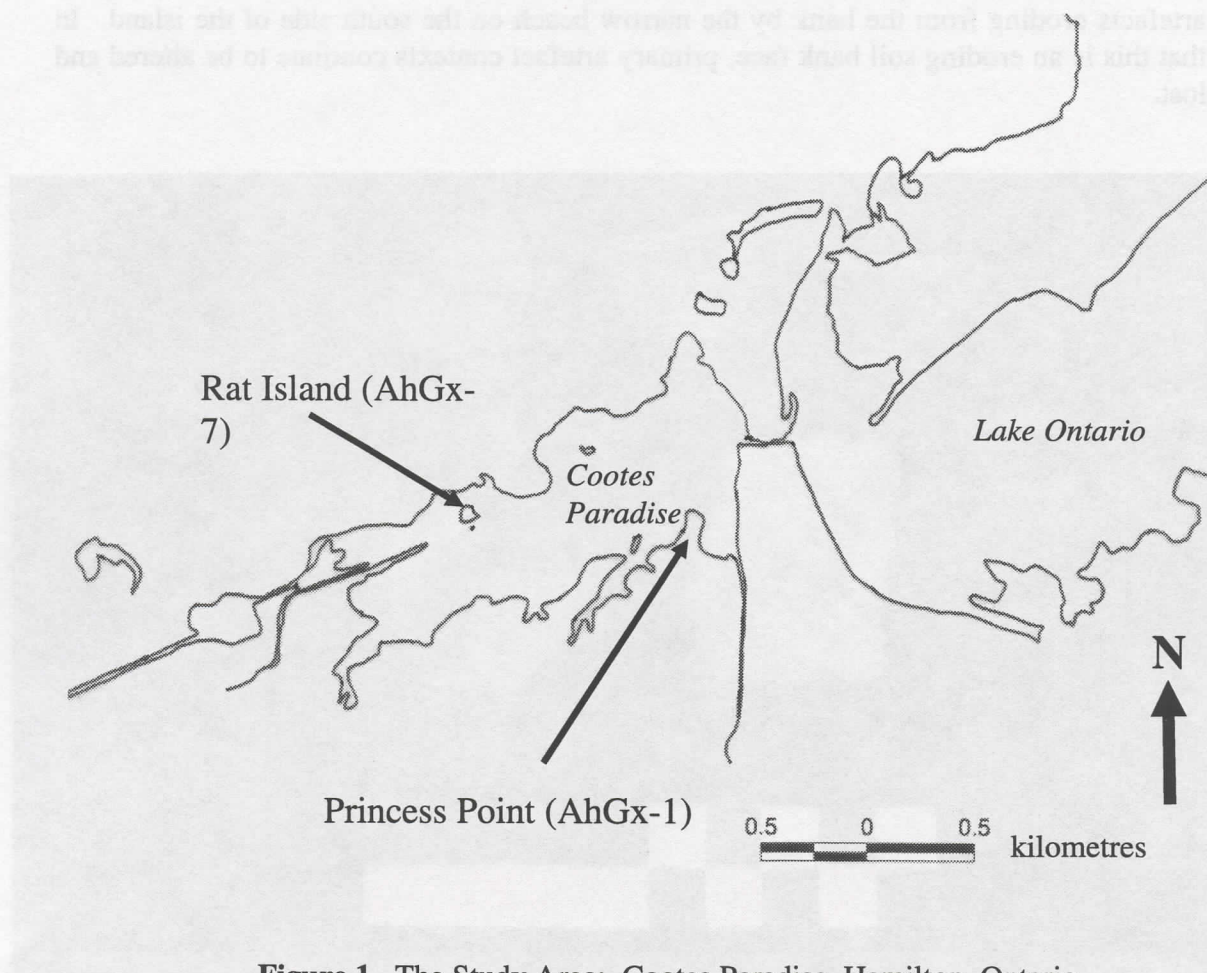
The Cootes Paradise wetland, located at the western end of Lake Ontario in Hamilton, has seen comparatively intense archaeological activity in recent years, following initial surveys and excavations by David Stothers and Ian Kenyon in 1969. A number of sites around the margins of the basin are now known (Martin 2005a; Smith 1997b; Smith and Crawford 1997; Smith *et al.* 1997; Stothers 1969). The Princess Point site, considered the 'typesite' for the Princess Point Complex, has been the subject of recent archaeological field school attention via the University of Toronto Mississauga (see Crawford and Smith 2002). About one kilometre west of Princess Point, also in the Cootes Paradise wetland but nearer the north-central shore of the basin, lies the site of Rat Island (AhGx-7) (see Figure 1).

I stumbled across this site, while hiking across the ice in Cootes Paradise in early 1998 and it was during this first informal visit that I recovered 10 Onondaga chert flakes (one utilised) and one Ancaster flake in the soil talus beneath the eroding bank along the island's south beach. Unknown to me at the time, Rat Island had seen minor excavations by Stothers and Kenyon during their 1969 campaign (see Smith 1997b; Stothers 1969, 1977). Based on the cord-wrapped stick ceramics found at Rat Island, the occupation there had been assigned to the Princess Point Complex, as were many other sites in the Cootes basin. Rat Island appears to be the largest, undisturbed wetland island site, known to me, that has produced cord-wrapped stick pottery in south-central Ontario. In this respect, further work at Rat Island may provide a unique perspective on local lifeways in the mid- to late first millennium AD.

During my second informal visit in early 2000, a pottery rim fragment (Artefact 5) (see Figure 2) was recovered, again, from the soil talus beneath the southern erosional face.



Artefact 5 exhibits external and internal cord-wrapped stick rim decoration and also features an everted rim and splayed lip. A drill made from an exhausted(?) Jack's Reef Corner-Notched projectile point (Artefact 4) (see Figure 3) on local Ancaster chert was also located atop the southwestern erosional bank of the island. Corresponding to the general temporal placement of cord-wrapped stick ceramics, the Jack's Reef point would also date from the middle to late centuries of the first millennium AD.



**Figure 1.** The Study Area: Cootes Paradise, Hamilton, Ontario.

Following the hiatus of about three decades in formal archaeological excavations at the island, I conducted a very limited Stage 3 investigation at Rat Island in the mid- to late summer of 2001. Upon my return to the island, after the two initial, informal visits, mentioned above, the large numbers of pottery sherds and chert debris were impressive. After extensive exploratory surface inspection and artefact pick up in order to get an idea of material concentrations around the island, I realised that artefact scatters existed over almost the entire southern and eastern portions of the island. No artefacts, however, have been recovered by me from the northwest and north-central portions of the island to date.



Except for the three plain sherds mentioned below, all ceramic material can be characterised as cord-wrapped stick impressed or cord-malleated/cord-paddled. Stothers' assessment was similar, "The Rat Island site appears to be a very rich homogenous [Princess Point Complex] component" (1969:20). It seems clear, then, that the entire southern portion of the island and the south side, in particular, witnessed prehistoric occupation, while any ancient use of the lower-lying, northern portion remains unknown except along the seasonally-inundated northeastern beach (e.g. where a large Levanna-like projectile point, Artefact 12, was found, see Figure 3). The putative southern aspect or orientation of occupation at the island is particularly evident from the density of artefacts eroding from the bank by the narrow beach on the south side of the island. In that this is an eroding soil bank face, primary artefact contexts continue to be altered and lost.



**Figure 2.** Selected cord-wrapped stick-decorated ceramics from Rat Island: Artefacts 9 (top left), 57 (top centre) and 56 (top right) and 11 (bottom left) and 5 (bottom right).

During my initial survey and limited test pit excavations at Rat Island, I was unaware of the details and whereabouts of Stothers and Kenyon's 1969 excavations (i.e. Stothers 1969). I obtained a copy of this report in 2002, following my limited excavations in 2001. Stothers and Kenyon's work on the island discerned three occupation areas: Area A, in the centre of the island, Area B, at the island's southeastern littoral and Area C, at the



island's southwestern littoral. Areas A and B were both subjected to 5' x 5' square area excavation. Area C was surface collected. Stothers (1969) suggested that Area A may have been a lithic workshop, having produced numerous blade-like flakes, and noted that all three areas produced ceramics of the Princess Point Complex (cf. below). My limited work on the island largely corroborates Stothers' (1969) assessment. Two landscape features were apparent to me from the outset. First, and also discerned by Stothers (1969), a low rise or ridge runs along the southern erosional face at Rat Island (see dashed outline in Figures 4 and 5). Second, a darker soil layer is apparent in the southern erosional face below this low rise (see below).

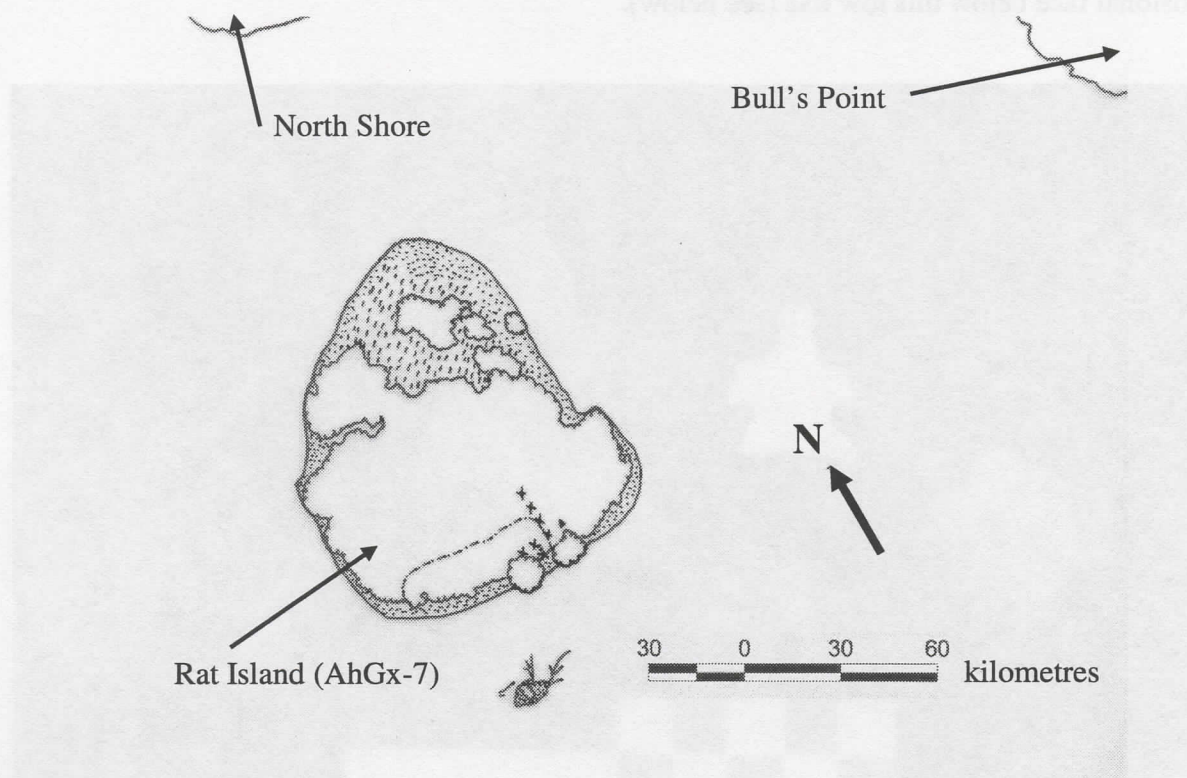


**Figure 3.** Lithic tools: Artefacts 1 (left), 4 (left-centre), 12 (right-centre) and 2 (right).

With regard to the erosion of this southern bank, it is difficult to know the original extent of Rat Island. At the same time, while extant portions of Rat Island seem to remain undisturbed, the Desjardins canal, constructed to connect the town of Dundas to Lake Ontario and completed in 1837, runs immediately to the south of the island. A small islet, apparently the southern border of the Desjardins route and marked by a few fallen trees lies to the south of Rat Island (see Figure 4). It is unknown if this islet is a remnant of an originally larger Rat Island, cut through by the Desjardins canal or if it is a relatively recent natural accumulation of silt deposited along the path of Coldwater Creek near its confluence with Spencer Creek. Both of these creeks empty into Cootes Paradise a short



distance to the west of Rat Island (see Figure 1). While it is difficult to ascertain the original routes of these two creeks, given industrial alterations and silt deposition, it seems that the waterway produced by the meeting of these two creeks was also followed and modified by the Desjardins Canal, which is now lost to mud and decay except for a few remaining wooden pilings. A programme of archival research would perhaps clarify the manner in which the canal was built and where any dredged silt was deposited.

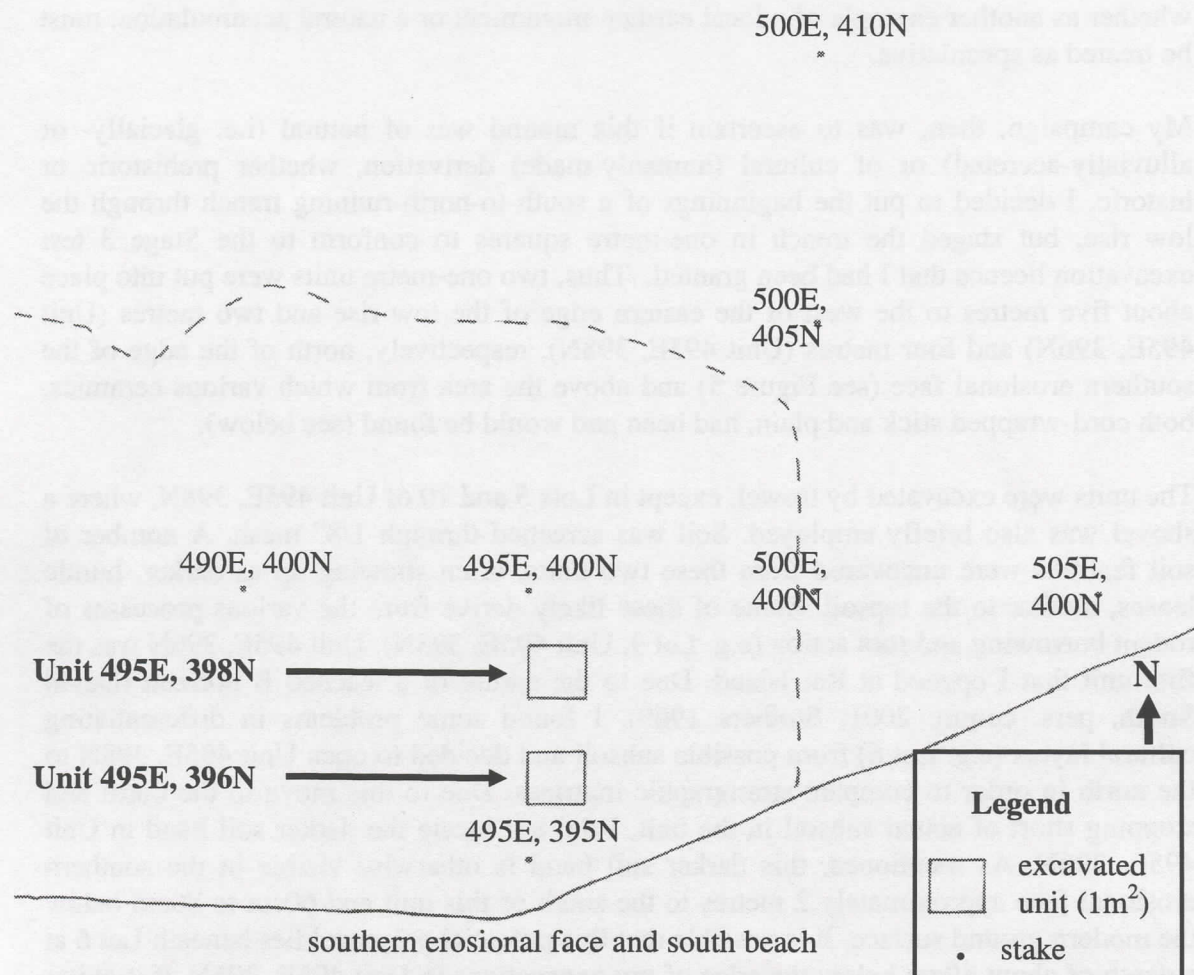


**Figure 4.** Rat Island (AhGx-7), Cootes Paradise, Hamilton, Ontario. The north shore mainland is seen to the northwest and northeast.

Approximately halfway along the southern edge of Rat Island runs the long low rise, mentioned above. This landscape feature is about 7m to 10m wide (north-south) by about 40m long (east-west) by about 80cm to 1m high. As implied, this mound-like rise is truncated along its long southern axis by the erosional face. Along this southern edge, there is a near-vertical drop of about two metres to the narrow south beach, with its attendant sloping soil talus. The nature of this low rise or mound, whether thrown up by human hands in prehistory, or in the early 1800s, or by glacial outwash, or by some later alluvial action, was of key interest to me. Since no historic rubbish was found in the excavated matrices of the two units, in that chert flakes were recovered at a depth of 26cm in Unit 495E, 398N, and because I discerned soil features in the units (see below),



the low rise does not appear to be the product of Desjardins canal building nor the piled up silt from canal dredging, which I had considered a possibility.



**Figure 5.** Rat Island (AhGx-7), showing the south-central portion of the island and the location of the two units (Unit 495E, 396N to the south and Unit 495E, 398N to the north), the baseline grid and a plan of the low rise and erosional face. Dashed line shows extent of low rise.

Earlier prehistoric occupants in the Cootes Paradise vicinity had raised at least one earthen mound on nearby Burlington Heights. It also appears that a possible mound exists at the Old Lilac Gardens site on the northeastern shore of Cootes Paradise. The derivation of this possible mound is disputed, however, and Stothers (1969) seems to suggest that the site has only produced cord-wrapped stick and later ceramic material, not the earlier



pseudo-scalloped, linear incised and dentate stamped wares which seem to be associated most often with burial mounds in the Lower Great Lakes region during the first half of the first millennium AD (cf. Stothers 1977). As implied above, however, until the darker soil layer seen in the southern erosional face at Rat Island is proven to be a palaeosol and not simply darker earth pulled down or caught up in root and vine action along the erosional face, the interpretation of the origins of the earth that makes up this low rise, whether as another example of a local earthen monument or a natural accumulation, must be treated as speculative.

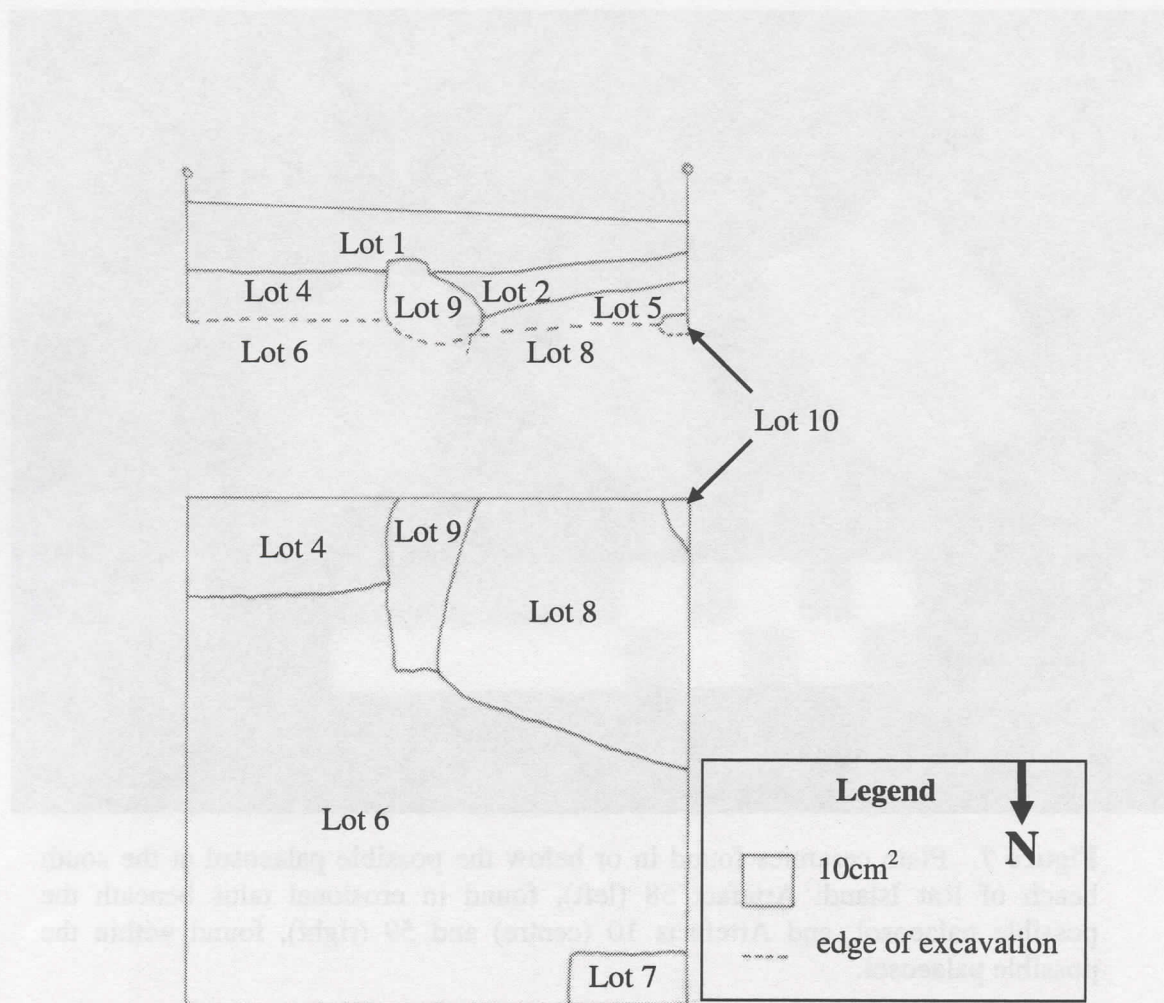
My campaign, then, was to ascertain if this mound was of natural (i.e. glacially- or alluvially-accreted) or of cultural (humanly-made) derivation, whether prehistoric or historic. I decided to put the beginnings of a south-to-north-running trench through the low rise, but staged the trench in one-metre squares to conform to the Stage 3 test excavation licence that I had been granted. Thus, two one-metre units were put into place about five metres to the west of the eastern edge of the low rise and two metres (Unit 495E, 396N) and four metres (Unit 495E, 398N), respectively, north of the edge of the southern erosional face (see Figure 5) and above the area from which various ceramics, both cord-wrapped stick and plain, had been and would be found (see below).

The units were excavated by trowel, except in Lots 5 and 10 of Unit 495E, 398N, where a shovel was also briefly employed. Soil was screened through 1/8" mesh. A number of soil features were uncovered from these two units, often showing up as darker, humic lenses, similar to the topsoil. Some of these likely derive from the various processes of rodent burrowing and root action (e.g. Lot 9, Unit 495E, 398N). Unit 495E, 396N was the first unit that I opened at Rat Island. Due to the nature of a leached B horizon (David Smith, pers. comm. 2001; Stothers 1969), I found some problems in differentiating cultural layers (e.g. Lot 6) from possible subsoil and decided to open Unit 495E, 398N to the north in order to compare stratigraphic matrices. Due to this move to the north and stopping short of actual subsoil in the unit, I did not locate the darker soil band in Unit 495E, 396N. As mentioned, this darker soil band is otherwise visible in the southern erosional face approximately 2 metres to the south of this unit and 60cm to 80cm below the modern ground surface. It is possible that this potential palaeosol lies beneath Lot 6 at a depth of about 40cm below the edge of my excavations in Unit 495E, 396N, if it exists at all in this location (see Figure 5).

Unit 495E, 398N was composed of a relatively intricate stratigraphy, often with subtle soil colour changes, texture and inclusion differences. Again, this could have been a function of natural processes of bioturbation, but in keeping with the possibility that the low rise was mounded by human hands, I demarcated these lots nonetheless, in case some were the products of basket loads of piled earth or were *in situ* features. Of some interest in Unit 495E, 398N is the stratigraphic complex or sequence of Lot 2-Lot 5-Lot 10-Lot 8 (see Figure 6). The earth in this southwestern quadrant of the unit was reddened and compressed and I interpreted this as a hearth feature. Lot 10, which appears to sit atop Lot 8 and below Lot 5 in the southwestern corner baulks of the unit was composed of a fine grey, ash-like material and also suggests either a hearth in primary context or the débris from hearth cleaning.



The full extent of Lot 10 and the reddened earth of Lots 2, 5 and 8 will become apparent to the south, southwest and west in a future excavation campaign. Due to the time constraints imposed by rapid water level decline in Cootes Paradise and the inability to canoe out to the island and the ensuing danger of getting physically stuck in the resulting mud flats, I was unable to complete excavation of Unit 495E, 398N through Lot 8 and on to the possible palaeosol and/or subsoil. Since neither unit is considered 'finished', then, I have demarcated the unit floors with breathable black fabric. Although granted a Stage 4 licence, other obligations permitted me only one visit to the island in 2002. My work on that day consisted of surface survey and inspection of the southern erosional face. This investigation produced one plain ceramic bodysherd (Artefact 59) (see below and Martin 2003b).



**Figure 6.** Unit 495E, 398N: South wall profile (above) and adjacent composite plan (below).

Thirty pottery vessel sherds derived from the controlled surface pick up of my work at Rat Island. Seven cord-wrapped stick decorated rimsherds, and four cord-wrapped stick



necksherds with missing rims are included in this total (see Figure 3). As mentioned above, three thick, dense, plain and smooth bodysherds (see Figure 7), all partially eroded on at least one surface, were recovered from the island. Artefact 10 was retrieved from the erosional talus beneath the darker soil layer. Artefact 58 was located in the darker soil band in the southern erosional face approximately 80cm below and south of the modern ground surface near tri-stake 495E, 395N (see Figure 5). Although found a year after Artefacts 10 and 58, Artefact 59 was found in the immediate vicinity of Artefact 58 also in the darker soil band at approximately 61cm below and south of the modern ground surface near tri-stake 495E, 395N.



**Figure 7.** Plain ceramics found in or below the possible palaeosol at the south beach of Rat Island: Artefact 58 (left), found in erosional talus beneath the possible palaeosol, and Artefacts 10 (centre) and 59 (right), found within the possible palaeosol.

While no ceramic fragments were found in Unit 495E, 396N, Unit 495E, 398N produced two ceramic sherds. Neither of these evidenced decorative treatments, but Artefact 105 was found vertically on its end in Lot 2, as though pushed into this reddened soil matrix that I have associated with a putative hearth to the southwest (see Figure 4). Artefact 105 appears to have been constructed through the manufacturing process of lamination or modelling, but its external surface is considerably eroded. Going on the laminated



appearance of Artefact 105 (see Bursey 1995:46), it may be that this sherd derives from a post-AD 500 or so occupation at this level, which is a mere 12cm below the modern land surface. The other sherd, Artefact 111, is highly fragmentary.

A total of 25 lithics came from the controlled surface pick up of my work at Rat Island. These break down to one scraper on Onondaga chert (see Figure 3, left), two Onondaga chert bifaces (one fragmentary [Figure 2, right] and one large preform), one large Levanna-like point on Onondaga chert (see Figure 3, second from right), a drill on Ancaster chert made from a Jack's Reef Corner-Notched point (Figure 3, second from left), two possible granitic hammer stones, one possible flake on quartz, one possible example of fire-cracked rock and 16 chert flakes. The vast majority of the flakes and bifaces were of Onondaga chert. From Unit 495E, 396N came 32 chert flakes, again, overwhelmingly of Onondaga chert. Unit 495E, 398N produced 55 chert flakes and one possible example of fire-cracked rock. Some of these Onondaga flakes, including the scraper noted above, featured a ruddy-orange patina (cf. Stothers 1969).

## FUTURE WORK

It is hoped that future research campaigns on Rat Island will ascertain the nature of both the low rise and the possible palaeosol. If the darker band of earth evident in the southern erosional face is, in fact, a palaeosol, then the low rise above it, in all probability, was constructed by human hands. Although bodysherds, Artefacts 10 and 59 (see Figure 7), found *in situ* within the darker soil band, and Artefact 58, found in the erosional talus beneath (Figure 7), are not cord-wrapped stick and/or cord-malleated wares, they may pertain to an occupation of the first half of the first millennium AD or earlier. Woodley (1996:32, 133), for example, points out the high proportion of plain sherds at the roughly contemporaneous HH site, which lies approximately 15km to the east of Cootes Paradise, near the south shore of Lake Ontario. As noted above, Stothers (1969:20) apparently believed that Rat Island was only occupied by people affiliated with the Princess Point Complex, but he did note that an undisclosed number of dentate stamped bodysherds were located in Area C at the southwestern corner of the island (Stothers 1969:22).

It is possible, then, that the group who used these smooth, thick wares and/or dentate stamped wares, constructed a long, low mound or platform on the island at some point before the cord-wrapped stick-using occupation. It is also possible that these people or their descendants adopted cord-wrapped stick decoration from peers and neighbours to the south and/or west. On the other hand, if Stothers' (1977:74-77) suggestions of mound building in the middle and late first millennium AD in south-central Ontario are correct, it is possible that users of cord-wrapped stick decorations constructed the mound atop an earlier occupation horizon, whether their own, their ancestors' or one belonging to a group they had displaced from the area. The possibility remains, though, that vine and root action, both rather intense along the erosional face, could have pulled down humus and the pottery sherds from their original positions.



If a future programme of excavation is emplaced to cut through the low rise and uncover this putative darker soil band and to associate it unequivocally with early first millennium AD ceramics, then the Rat Island site would offer evidence of a well-defined occupation by local non-cord-wrapped stick users stratigraphically superimposed by a cord-wrapped stick occupation (cf. palimpsestic occupations in Smith 2001). If these occupations are found to be well-separated by a mound-constructing episode, it may be possible to compare settlement patterns and the contexts and relative associations of material trait assemblages before and after the mound was constructed. The site may, then, provide stratigraphic and seriation evidence to assess site reuse by a group that either adopted a new ceramic motif by trait diffusion or that was displaced by an immigrating group. It also may elucidate the local appearance of maize and the transition from putatively local use of wild rice to maize agriculture (e.g. Davis and Smith 1998; Lee *et al.* 2004). Given the fundamental problems, mentioned above, however, arguments for migration and replacement may never be the most parsimonious nor appropriate explanations for apparent discontinuities in materials, artefact traits and settlement patterns on a site, in a given locality or throughout a whole region.

## CONCLUSION

My research at Rat Island during 2001 and 2002 recovered evidence for occupation around or just after AD 500. Earlier use is also suggested. While it appears, then, that the site was occupied by a group who used cord-wrapped stick-decorated ceramic, the nature of their inhabitation is not known in any secure way. As Stothers (1969) suggests, at least a portion of the island may have been used as a lithic workshop. The derivation of the low rise or mound also remains speculative, but it is possible that it was constructed by a local group before cord-wrapped stick ceramic decorations were employed in the area.

In that the site is protected by the Royal Botanical Gardens, there is no known threat to the island from development and, seemingly, very little from vandalism, although some recent campfires and rubbish were evident on the island. The most serious problem jeopardizing the archaeological integrity of the site is the erosion of the southern erosional face, mentioned above. It would appear that this erosion has been underway for some time, decades or perhaps centuries, and that at least some of the soil that erodes from the southern erosional face is inundated by the higher water levels of spring, which lap at the base of the erosional face when at their highest. Thus, the island is slowly being washed into the Cootes Paradise basin and the information about its first millennium AD occupations along with it. I hope to return to Rat Island on a future Stage 4 research excavation campaign in order to further investigate the many outstanding questions that the occupation of the island has thrown up with regard to local lifeways and the transition to maize and cord-wrapped stick use in south-central Ontario.



### Acknowledgements

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### Treasurers Annual Report, London Chapter, OAS, 2004

	Membership Account	Publications Account	Totals
Total Bank Balances Jan 1, 2003 from 2003 Financial Statement	\$1,464.13	\$7,424.28	\$8,888.41
<b>Revenue</b>			
Membership Fees	\$1,522.54		
Life Memberships (1 @\$300)	\$300.00		
Subscriber Fees	\$60.00		
Kewa Back Issue Sales (incl 19th cent Notes)	\$110.23		
Book Publication Sales		\$467.67	
<b>Total Revenue</b>	\$1,992.77	467.67	\$2,460.44
<b>Expenditures</b>			
Kewa Printing	\$478.44		
Kewa Mailing	\$624.40		
Other mailing	\$33.85		
Speaker Dinner, Cookies, Juice	\$124.66		
Museum Rental for Meetings	\$200.00		
2006 Symposium Deposit		\$750.00	
<b>Total Expenses</b>	\$1,461.35	\$750.00	\$2,211.35
<b>Book Balances at Dec 31, 2003</b> from spreadsheet detail	\$1,995.55	\$7,141.95	\$9,137.50
<b>Total Bank Balances Dec 31, 2003</b> from Dec 2003 Bank Statements	\$1,995.55	\$7,141.95	\$9,137.50

#### Notes

1. The London Chapter maintains two bank accounts, one for normal chapter business and one for the Occasional Publications series. These are shown in each of the two columns.
2. We are up \$249.09 over 2004.
3. Note the \$750 deposit that was made for hotel facilities for the 2006 OAS Symposium that is being hosted by the London Chapter. This money will be regained through conference registration fees.
4. Exclusive of that we would have recorded a profit of approximately \$1000. This comes largely from book sales of \$428.67 and the purchase of a Life Membership at \$300.
5. In 2005, we will need to make a clear distinction between members and subscribers owing to OAS constitutional restrictions that only OAS provincial members can be chapter "members" The total of \$1522.54 membership fees includes both members and subscribers.